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| 09/925,234 | 08/09/2001 | Yoshiyasu Kubota | SONYJP 3.0-196 | 3653 |
| 530 | 7590 | 11/29/2006 | EXAMINER | |
| LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090 | | | ZHEN, LI B | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2194 | |

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,234

Applicant(s)

KUBOTA, YOSHIYASU

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006 and 08 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 10 – 21 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/08/2006 has been entered.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 10 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,058,563 to Chrysanthakopoulos et al. [hereinafter**

**Chrysanthakopoulos] in view of U.S. Patent No. 6,574,588 to Shapiro et al.
[hereinafter Shapiro].**

6. As to claim 10, Chrysanthakopoulos teaches the invention substantially as claimed including an electronic device [peripheral device 210, 212, Fig. 1; col. 4, lines 45 – 62] adapted to be detachably mounted [device 210, 212 is available to be enumerated the moment it is plugged in; col. 5, lines 23 – 43] to main equipment [computers 200, 202; col. 4, lines 36 – 46] for providing optional data to the main equipment and permitting optional functions to be executed [col. 3, lines 15 – 40], the electronic device comprising:

a data memory unit [configuration read-only memory (CROM) 218, 220; col. 4, lines 45 – 62];

software data stored in the data memory unit [CROM for a device might have drivers for Microsoft Windows.RTM. 98, Linux, and/or any other operating system; col. 4, line 61 – col. 5, line 9], the software data including a plurality of portions each containing driver data corresponding to a specific computer environment [CROM 218, 220 could store--in addition to drivers...for various operating systems; col. 5, lines 9 – 24] selected from a plurality of different specific computer operating environments [if the CROM 218, 220 does store drivers (or pointers), then the operating system will preferably check the first driver to see if it is suitable for use with the operating system at S312; col. 5, lines 42 – 60], for permitting execution of a plurality functions in accordance with the specific computer operating environment of a main equipment

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[capabilities of the device (e.g. whether the device is bus manager capable), and specifying optional module, node, and unit characteristics and parameters; col. 4, lines 45 – 62] selected from a plurality of main equipments [computers 200, 202; col. 4, lines 36 – 46], each main equipment being operable in accordance with a respective one of the plurality of different specific computer operating environments [operating system running on a computer 200, 202; col. 5, lines 23 – 43];

an interface unit in form of a memory card interface for transfer of data from the electronic device to the selected main equipment [IEEE 1394 bus interfaces 214, 216 that enable communication; col. 4, lines 36 – 46] and from the selected main equipment to the electronic device [any computer 200, 202 connected to the IEEE 1394 bus 204 could load the necessary drivers directly from the peripheral device 210, 212; col. 4, line 61 – col. 5, line 10]; and

an output unit operable, upon mounting the electronic device to the selected main equipment [device 210, 212 is available to be enumerated the moment it is plugged in; col. 5, lines 23 – 43], to output one of said portions of the software data containing said driver data [any computer 200, 202 connected to the IEEE 1394 bus 204 could load the necessary drivers directly from the peripheral device 210, 212; col. 4, line 61 – col. 5, line 10] and corresponding to said selected specific computer operating environment [CROM for a device might have drivers for Microsoft Windows.RTM. 98, Linux, and/or any other operating system; col. 4, line 61 – col. 5, line 9] from the data memory unit [CROM 218, 220 could store--in addition to drivers...for various operating systems; col. 5, lines 9 – 24] to the selected main equipment [computers 200, 202; col.

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4, lines 36 – 46] through said interface unit [IEEE 1394 bus interfaces 214, 216 that enable communication; col. 4, lines 36 – 46] for installation of said driver data in the selected main equipment [installing device drivers on IEEE 1394-enabled devices; col. 5, line 60 – col. 6, line 11] to permit said functions to be executed using the electronic device while the electronic device is mounted to the selected main equipment [capabilities of the device (e.g. whether the device is bus manager capable), and specifying optional module, node, and unit characteristics and parameters; col. 4, lines 45 – 62]. Although Chrysanthakopoulos teaches the invention substantially, Chrysanthakopoulos does not specifically teach execution of a respective one of a plurality of separately selectable functions in accordance with the specific computer operating environment of a main equipment selected from a plurality of main equipments, selecting one of said plurality of functions, to output one of said portions of the software data containing said driver data for said selected function.

However Shapiro teaches an electronic device [peripheral device 170; col. 4, lines 11 – 40] adapted to be detachably mounted to main equipment [peripheral 170 is preferably connected to the computer system 100; col. 4, lines 11 – 40], a data memory unit [finds the driver stored in the memory device; col. 6, lines 34 – 58], an interface unit in form of a memory card interface for transfer of data from the electronic device to the selected main equipment [serial connection 180; col. 4, lines 12 – 40], an output unit operable to output one of said portions of the software data containing said driver data [loads this driver from the memory device, and installs it; col. 6, lines 35 – 58], permitting execution of a respective one of a plurality of separately selectable functions

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[peripheral function subsystem is the portion of the additional peripheral that provides typical peripheral functionality; col. 4, lines 39 – 64] in accordance with the specific computer operating environment of a main equipment selected from a plurality of main equipments [steps preferably performed by the operating system in order to utilize an additional peripheral that includes a peripheral function subsystem; col. 6, lines 13 – 35], and output one of said portions of the software data containing said driver data for said selected function [loads this driver from the memory device, and installs it. Following this installation process, the operating system can communicate with the peripheral function subsystem using the driver; col. 6, lines 35 – 58].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Chrysanthakopoulos to include the features of executing a respective one of a plurality of separately selectable functions of a main equipment selected from a plurality of main equipments and selecting one of said plurality of functions to output one of said portions of the software data containing said driver data for said selected function because this provides a new peripheral function subsystem that does not require the provision of a separate driver [col. 6, lines 52 – 58 of Shapiro] and allows the operating system to quickly retrieve programs stored in the memory device using commands in the hard drive command set [col. 7, lines 7 – 15 of Shapiro].

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7. As to claim 13, Chrysanthakopoulos as modified by Shapiro teaches an electronic apparatus [peripheral device 210, 212, Fig. 1; col. 4, lines 45 – 62 of Chrysanthakopoulos], comprising:

a main apparatus selected from a plurality of main apparatuses [computers 200, 202; col. 4, lines 36 – 46 of Chrysanthakopoulos], each main apparatus being operable in accordance with a respective one of a plurality of different specific computer operating environments [if the CROM 218, 220 does store drivers (or pointers), then the operating system will preferably check the first driver to see if it is suitable for use with the operating system at S312; col. 5, lines 42 – 60 of Chrysanthakopoulos]; and

an electronic device detachably mounted to the selected main apparatus [device 210, 212 is available to be enumerated the moment it is plugged in; col. 5, lines 23 – 43 of Chrysanthakopoulos] for exchanging optional data with the selected main apparatus [col. 3, lines 15 – 40 of Chrysanthakopoulos], the electronic device including a data memory unit [configuration read-only memory (CROM) 218, 220; col. 4, lines 45 – 62 of Chrysanthakopoulos], and software data stored in the data memory unit [CROM for a device might have drivers for Microsoft Windows.RTM. 98, Linux, and/or any other operating system; col. 4, line 61 – col. 5, line 9 of Chrysanthakopoulos], the software data including a plurality of portions each containing driver data corresponding to a specific computer environment [CROM 218, 220 could store--in addition to drivers...for various operating systems; col. 5, lines 9 – 24 of Chrysanthakopoulos] selected from the plurality of different specific computer operating environments [if the CROM 218, 220 does store drivers (or pointers), then the operating system will preferably check the first

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driver to see if it is suitable for use with the operating system at S312; col. 5, lines 42 – 60 of Chrysanthakopoulos], for permitting execution of a respective one of a plurality of separately selectable functions [peripheral function subsystem is the portion of the additional peripheral that provides typical peripheral functionality; col. 4, lines 39 – 64 of Shapiro] in accordance with the specific computer operating environment of the selected main apparatus [steps preferably performed by the operating system in order to utilize an additional peripheral that includes a peripheral function subsystem; col. 6, lines 13 – 35 of Shapiro] when the electronic device is mounted to the selected main apparatus [peripheral 170 is preferably connected to the computer system 100; col. 4, lines 11 – 40 of Shapiro], an interface unit in form of a memory card interface unit for transfer of data from the electronic device to the selected main apparatus and from the selected main apparatus to the electronic device [IEEE 1394 bus interfaces 214, 216 that enable communication; col. 4, lines 36 – 46 of Chrysanthakopoulos], the selected main apparatus including an identification unit operable to identify the portions stored in the data memory unit of the electronic device [Information included within the CROM may include information for: identifying the software driver for the device 210, 212; col. 4, lines 45 – 63 and col. 2, lines 25 – 45 of Chrysanthakopoulos], and to obtain the portion corresponding to the selected function [peripheral function subsystem is the portion of the additional peripheral that provides typical peripheral functionality; col. 4, lines 39 – 64 of Shapiro] and corresponding to the specific computer operating environment of the selected main apparatus [any computer 200, 202 connected to the IEEE 1394 bus 204 could load the necessary drivers directly from the peripheral device

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210, 212; col. 4, line 61 – col. 5, line 10 of Chrysanthakopoulos] from the electronic device through the interface unit upon selecting a respective one of the plurality of functions [peripheral function subsystem is the portion of the additional peripheral that provides typical peripheral functionality; col. 4, lines 39 – 64 of Shapiro] and install the obtained portion on the selected main apparatus [loads this driver from the memory device, and installs it; col. 6, lines 35 – 58 of Shapiro], such that the selected function can be executed using the electronic device while the electronic device is mounted to the selected main apparatus [col. 4, lines 39 – 64 of Shapiro]. As to the motivation for combining Chrysanthakopoulos and Shapiro, see the rejection to claim 10 above.

8. As to claim 16, Chrysanthakopoulos as modified by Shapiro teaches a method of obtaining driver software data [any computer 200, 202 connected to the IEEE 1394 bus 204 could load the necessary drivers directly from the peripheral device 210, 212; col. 4, line 61 – col. 5, line 10 of Chrysanthakopoulos] by a main apparatus [computers 200, 202; col. 4, lines 36 – 46 of Chrysanthakopoulos] from an electronic device [device 210, 212 is available to be enumerated the moment it is plugged in; col. 5, lines 23 – 43 of Chrysanthakopoulos] detachably mounted thereto [device 210, 212 is available to be enumerated the moment it is plugged in; col. 5, lines 23 – 43 of Chrysanthakopoulos], the main apparatus selected from a plurality of main apparatuses [computers 200, 202; col. 4, lines 36 – 46 of Chrysanthakopoulos], each main apparatus being operable in accordance with a respective one of a plurality of different specific computer operating environments [if the CROM 218, 220 does store drivers (or pointers), then the operating

system will preferably check the first driver to see if it is suitable for use with the operating system at S312; col. 5, lines 42 – 60 of Chrysanthakopoulos], to enable an optional function to be executed while the electronic device is mounted to the selected main apparatus [capabilities of the device (e.g. whether the device is bus manager capable), and specifying optional module, node, and unit characteristics and parameters; col. 4, lines 45 – 62 of Chrysanthakopoulos], the method comprising:

storing driver software data in the electronic device [configuration read-only memory (CROM) 218, 220; col. 4, lines 45 – 62 of Chrysanthakopoulos], the driver software data including a plurality of portions [CROM for a device might have drivers for Microsoft Windows.RTM. 98, Linux, and/or any other operating system; col. 4, line 61 – col. 5, line 9 of Chrysanthakopoulos], each portion for enabling execution of a respective one of a plurality of separately selectable functions [peripheral function subsystem is the portion of the additional peripheral that provides typical peripheral functionality; col. 4, lines 39 – 64 of Shapiro] in accordance with the respective specific computer operating environment of the selected main apparatus [CROM 218, 220 could store--in addition to drivers...for various operating systems; col. 5, lines 9 – 24 of Chrysanthakopoulos] when the electronic device is mounted to the selected main apparatus [col. 5, lines 23 – 43 of Chrysanthakopoulos];

selecting one function from the plurality of separately selectable functions [peripheral function subsystem is the portion of the additional peripheral that provides typical peripheral functionality; col. 4, lines 39 – 64 of Shapiro];

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identifying the portion of the software data [Information included within the CROM may include information for: identifying the software driver for the device 210, 212; col. 4, lines 45 – 63 and col. 2, lines 25 – 45 of Chrysanthakopoulos] corresponding to the selected function [col. 4, lines 39 – 64 of Shapiro] and corresponding to the specific computer operating environment of the selected main apparatus [any computer 200, 202 connected to the IEEE 1394 bus 204 could load the necessary drivers directly from the peripheral device 210, 212; col. 4, line 61 – col. 5, line 10 of Chrysanthakopoulos];

transferring the identified portion of the software data from the electronic device to the selected main apparatus [any computer 200, 202 connected to the IEEE 1394 bus 204 could load the necessary drivers directly from the peripheral device 210, 212; col. 4, line 61 – col. 5, line 10 of Chrysanthakopoulos] through an interface unit having a form of a memory card interface [IEEE 1394 bus interfaces 214, 216 that enable communication; col. 4, lines 36 – 46 of Chrysanthakopoulos]; and

installing the identified portion of the software data on the selected main apparatus [loads this driver from the memory device, and installs it; col. 6, lines 35 – 58 of Shapiro] to enable execution of the selected function using the electronic device while the electronic device is mounted to the selected main apparatus [col. 4, lines 39 – 64 of Shapiro]. As to the motivation for combining Chrysanthakopoulos and Shapiro, see the rejection to claim 10 above.

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9. As to claim 11, Chrysanthakopoulos teaches the software data are stored in the data memory unit using a file format [drivers (and/or other installation/configuration files) for various operating systems and devices; col. 5, lines 9 – 24].

10. As to claim 12, Chrysanthakopoulos teaches the storage addresses corresponding to keywords [key information; col. 2, lines 25 – 45] identifying the plurality of functions are stored at leaders of address spaces [col. 4, lines 45 – 63] in the data memory unit, and the portions are stored at the storage addresses corresponding to the keywords [unique address; col. 3, lines 55 – 67].

11. As to claim 14, Chrysanthakopoulos teaches the software data are stored in the data memory using a file format, and the identification unit is operable to identify the portion corresponding to the selected function using the file format [drivers (and/or other installation/configuration files) for various operating systems and devices; col. 5, lines 9 – 24].

12. As to claim 15, Chrysanthakopoulos as modified by Shapiro teaches the storage addresses corresponding to keywords [key information; col. 2, lines 25 – 45 of Chrysanthakopoulos] identifying the plurality of portions are stored at leaders of address spaces [col. 4, lines 45 – 63 of Chrysanthakopoulos] in the data memory unit, the portions being stored at the storage addresses corresponding to the keywords [unique address; col. 3, lines 55 – 67 of Chrysanthakopoulos], and the identification unit is

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operable to identify the portion corresponding to the selected function on the basis of the keywords [col. 6, lines 13 – 35 of Shapiro].

13. As to claim 17, Chrysanthakopoulos teaches the step of storing includes storing the driver software data in the electronic device using a file format [drivers (and/or other installation/configuration files) for various operating systems and devices; col. 5, lines 9 – 24], and the step of transferring transfers the identified portion of the driver software data based on the file format [loads the drivers and other files from the CROM; col. 5, line 60 – col. 6, line 11].

14. As to claim 18, Chrysanthakopoulos as modified by Shapiro teaches the step of storing includes storing storage addresses corresponding to keywords [key information; col. 2, lines 25 – 45 of Chrysanthakopoulos] identifying the plurality of portions of driver software data at leaders of address spaces in the electronic device [col. 4, lines 45 – 63 of Chrysanthakopoulos], and storing the portions of the driver software data at the storage addresses corresponding to the keywords [unique address; col. 3, lines 55 – 67 of Chrysanthakopoulos], and the step of identifying includes identifying the portion of the driver software data corresponding to the selected function on the basis of the keywords [col. 6, lines 13 – 35 of Shapiro].

15. As to claim 19, Chrysanthakopoulos as modified by Shapiro teaches the plurality of functions includes at least one function which is not a memory function [memory

device 220 contains other programs relating to the peripheral function subsystem, such as application or utility programs; col. 6, lines 57 – 67 of Shapiro].

16. As to claim 20, Chrysanthakopoulos as modified by Shapiro teaches the plurality of functions includes at least one function which is not a memory function [memory device 220 contains other programs relating to the peripheral function subsystem, such as application or utility programs; col. 6, lines 57 – 67 of Shapiro].

17. As to claim 21, Chrysanthakopoulos as modified by Shapiro teaches the plurality of functions includes at least one function which is not a memory function [memory device 220 contains other programs relating to the peripheral function subsystem, such as application or utility programs; col. 6, lines 57 – 67 of Shapiro].

CONTACT INFORMATION

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2194

LBZ

A handwritten signature in black ink, appearing to be 'Li B. Zhen', written in a cursive style.